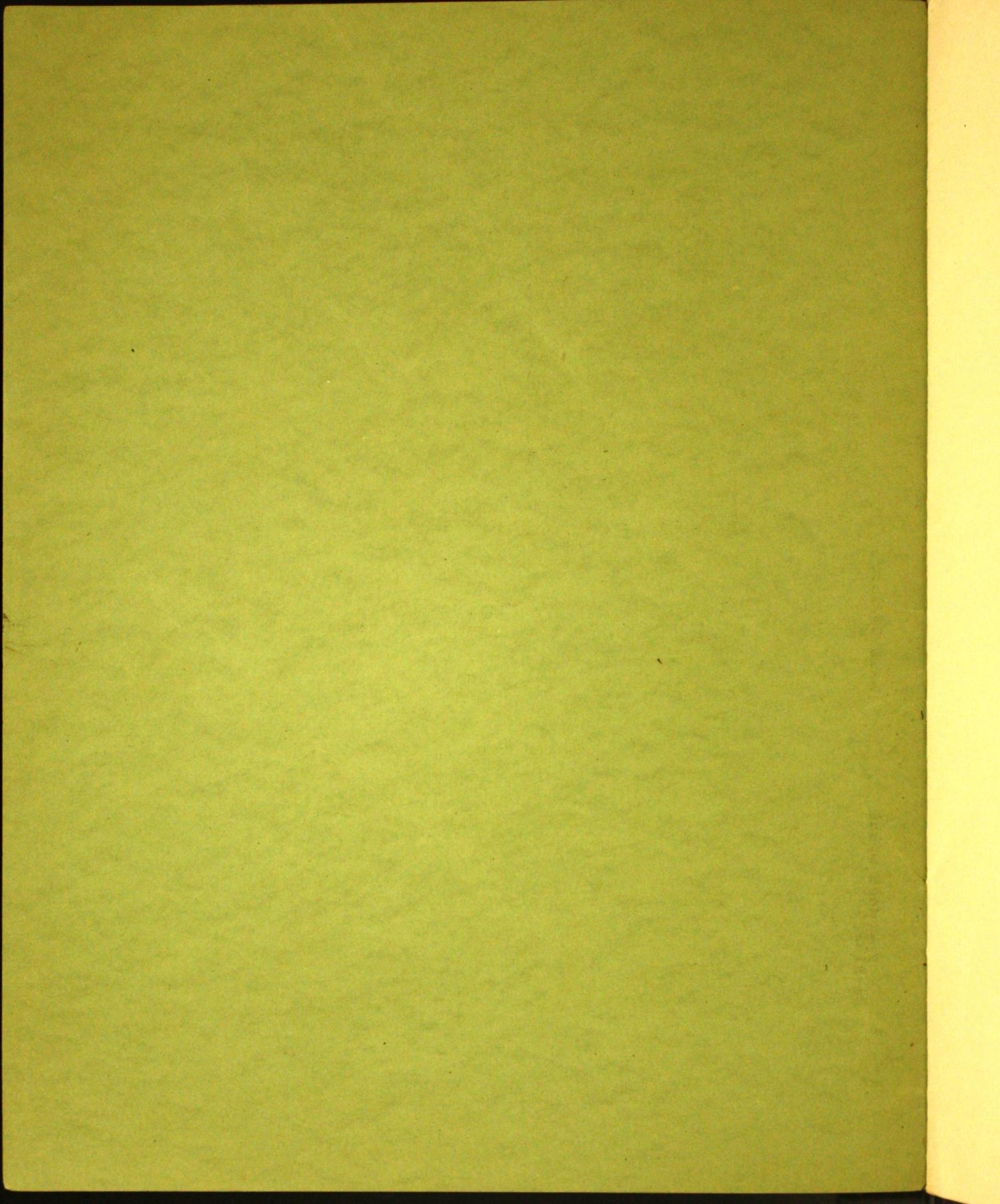


# THORN CASEMENTS

RESIDENCE  
AND  
APARTMENT  
TYPES



# THORN RESIDENCE CASEMENTS



CATALOG                    RC 4

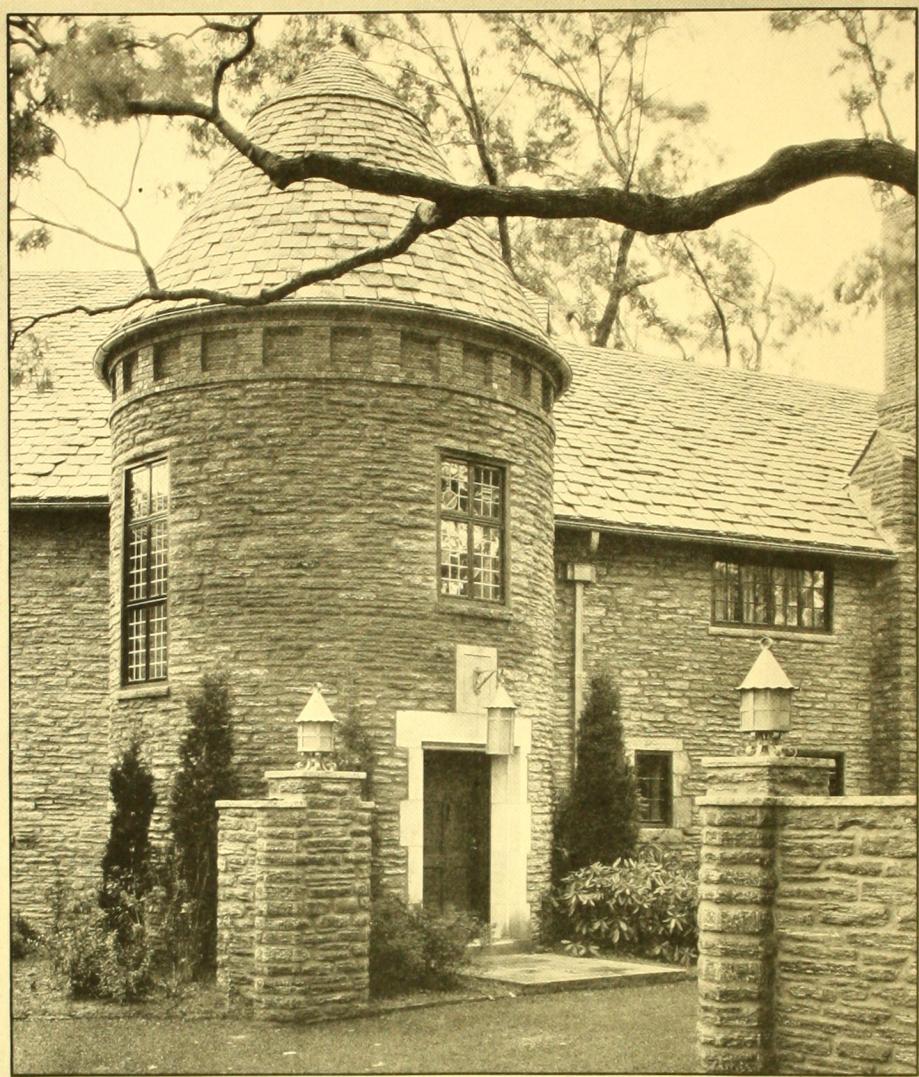
J. S. THORN CO.

PHILADELPHIA

NEW YORK    CHICAGO    BOSTON  
AGENCIES   IN   OTHER   CITIES

March

1928



ENTRANCE TOWER TO CLARK RESIDENCE  
Germantown Pennsylvania  
De Armond, Ashmead & Bickley Architects

"The house of every one is to him as his castle and fortress, as well  
for his defence against injury and violence as for his repose"

SIR EDWARD COKE

## THORN CASEMENTS

THE charm and beauty of the metal casement have captivated the American home builder. The great utility of this window and its adaptability to almost every architectural period have firmly established it as a requisite part of the modern American home.

The steel casement, properly made and installed, is a source of permanent satisfaction and gratifies the desire of the home-loving American for comfort, convenience and beauty. Its great advantages over the wooden window lie in its perfect weathering without weatherstrips, regardless of atmospheric changes, and its low maintenance cost.

The Thorn Residence Casement is an economical window for residence and apartment construction. It is made of double contact steel sections, rolled under our supervision, and which are considerably heavier than those used in nearly every other make of steel cottage or residence type window. The most modern equipment and methods are employed in its manufacture, including a special welding process for all corners of leaf and frame, which not only assures a perfect joining of the bars but in addition a perfect right angle. All muntin joints are also flush and welded.

The greatest contributing factor to this fine product, however, is fully expressed by the word "workmanship," for regardless of materials used and equipment employed, a window such as the Thorn Residence Casement could not be constructed without the

fine handiwork and pride of every mechanic from our routine machine operators to our expert hand-fitters.

The persistent efforts of the Thorn Company to incorporate only the very best of materials and workmanship into their products have been recognized and rewarded, for in the standards of quality established by prominent architects and home builders, the Thorn Residence Casement is rated as "among the best."

Thorn Residence Casements are made up in a great variety of standard sizes, produced in large quantities, thereby effecting economy. These standard units and their combinations will provide a window for any ordinary requirements at an installed cost no greater than that of a good quality wooden window. These standard units are fitted with fine solid bronze full-grip handles in a light statuary finish.

The outstanding mechanical feature of this window is the patented solid bronze friction cleaning hinge, which eliminates the necessity of sill adjusters, and holds the leaf firmly in any position without the assistance of stays of any description. It has a sliding movement which brings the outside surface of the glass within easy access for cleaning from the inside of the building. It is hereinafter more fully described and illustrated.

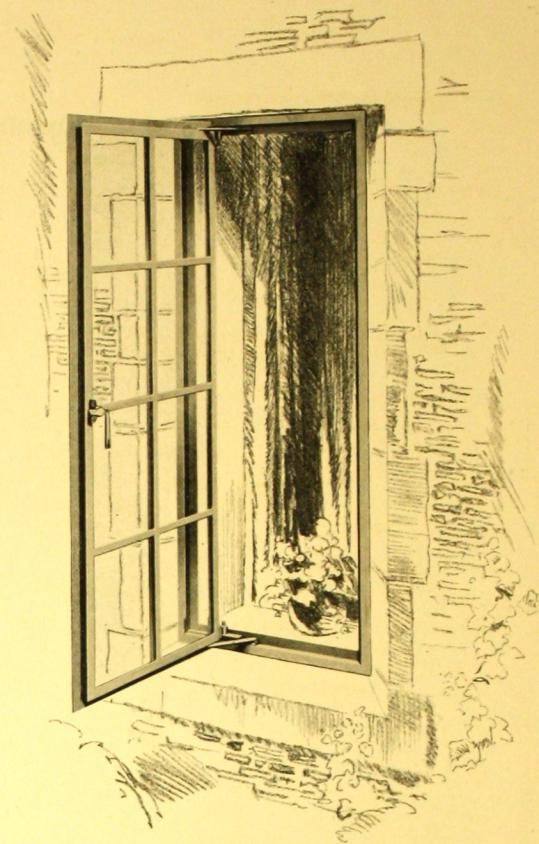
Our designers are at the disposal of architects and home builders to assist them in the solution of all window problems.

*Specifications*  
for  
**T H O R N**  
*R e s i d e n c e*  
*C a s e m e n t s*

**A**LL openings, except where otherwise noted, shall be fitted with Thorn Residence Casements of types and sizes shown, as manufactured by J. S. THORN COMPANY, PHILADELPHIA, PA., or equal only as approved by the architect.

Casements shall be constructed of specially rolled, one-piece double contact sections, weighing not less than 1.16 lbs. per lin. foot. All corners shall be mitered and electrically butt welded and ground smooth. Casements shall be square, true to size and accurately bedded to frame, to form continuous contact at both surfaces. Muntin bars shall have  $\frac{5}{8}$  inch face, and all intersections shall be flush and welded.

They shall be equipped with Thorn Friction cleaning hinges of solid bronze, permitting the cleaning of the outside of glass from within and eliminating all exposed sill adjusters. Fasteners shall be Thorn standard, straight handle

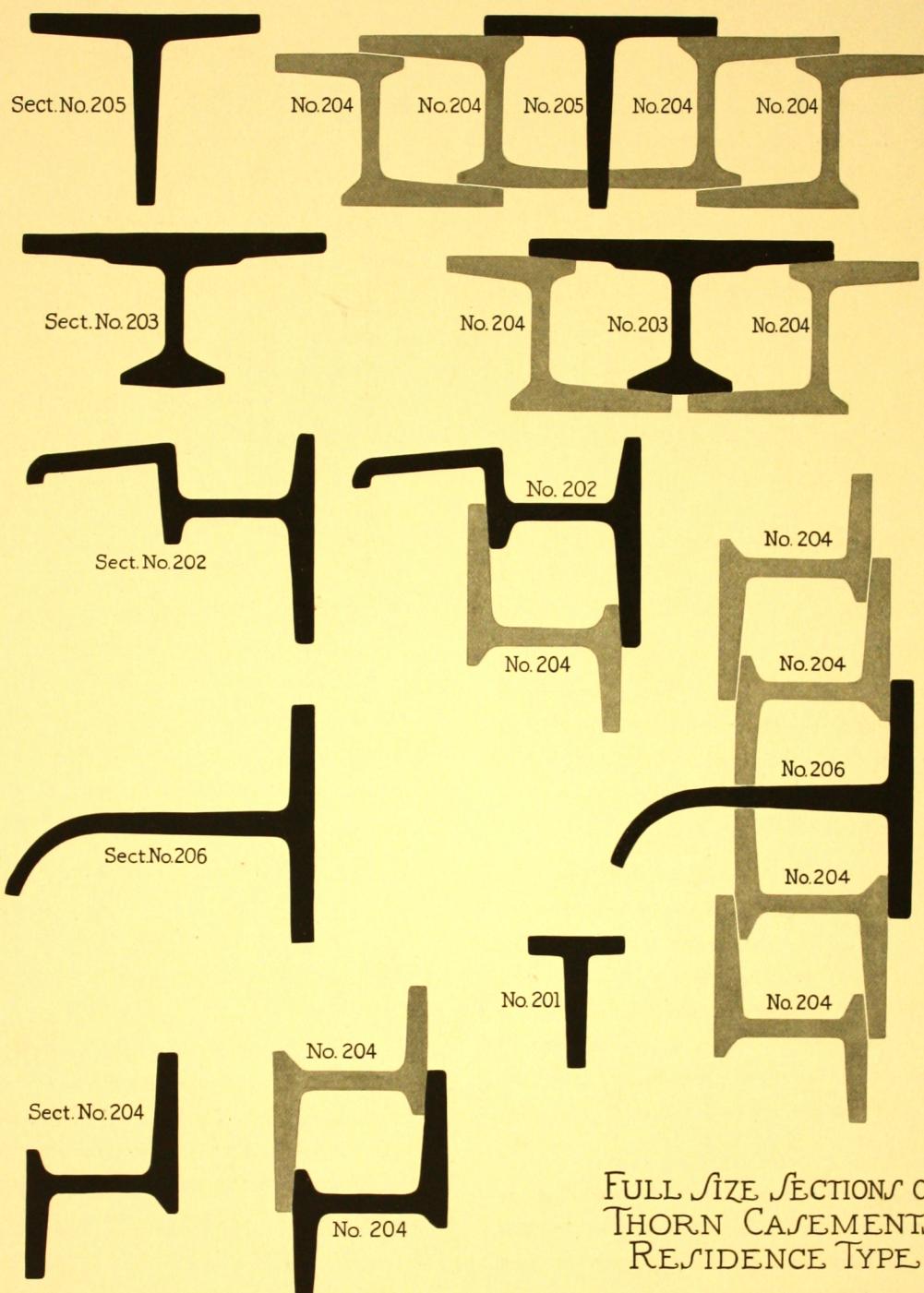


type, 7RS10, of solid bronze, light statuary finish.

All casements shall be given a coat of Thorn standard elastic enamel before leaving factory.

They shall be set in a good grade of mastic, and in accordance with manufacturers' details and recommendations. They shall not be sprung or forced into the openings, even to the slightest degree, but should be "eased" in, and where set to wood framing, extreme care must be taken to see that wood screws are driven straight and not pulled up tighter than the point where the screw head is flush with the steel frame, to avoid any possibility of twisting the casement frame and ruining the weathering qualities.

The contractor erecting the casements shall be held responsible for their weathertightness.



FULL SIZE SECTIONS OF  
THORN CASEMENTS  
RESIDENCE TYPE

## THORN BRONZE FRICTION HINGE AND HANDLES

THE patented Thorn Friction Cleaning Hinge is an exclusive feature of the Thorn casement and is standard equipment.

This unique hinge, from the outside, closely resembles the standard flat bronze door hinge excepting that it is noticeably more rugged and the leaf is angle shaped, to fit the corner of the casement leaf.

It is a three-knuckle solid bronze casting with a driven fit steel pin. The center knuckle is integral with a sliding shoe milled out to fit snugly over an extruded bronze track on which it rides. The track is concealed between the casement leaf and frame, and when the window is closed it is protected from the elements, and is therefore free moving under any weather conditions.

A steel support arm pivoted on the end of the track and to the casement leaf draws the sliding shoe along the track and causes the casement leaf to ride away from the jamb of the window in a straight line as the leaf is opened.

A friction control is provided in the hinge by means of a steel spiral spring and two rounded washers inserted in a counterbored bronze barrel extension to the center knuckle of the hinge, located directly over the track. An adjustable screw puts the spring in compression and controls the friction applied by the lower washer against the hard bronze track.

It has been in practical use for a number of years, has been thoroughly tried, and has met every requirement of ideal hinge construction for casement windows in the home and apartment, and its mechanical features contribute largely to the weathertightness of the Thorn casement.

This famous hinge of solid, time-resisting bronze, developed by Thorn, has accomplished a five-fold purpose, i. e.:

It brings the outside surface of the glass in outswinging casements within easy access from the inside for cleaning.

It retains the beauty for which the casement has always been noted in accomplishing the above feature, by retaining the appearance of the standard butt hinge.

It eliminates the sill adjuster, and thereby prevents the rattling of the sash in the wind.

It holds the sash firm at the top as well as at the bottom, thus preventing the top of the sash from whipping, which is bound to occur where the only bottom is held by an adjuster.

It draws the casement leaf snugly into the frame, making a tight contact between frame and sash.

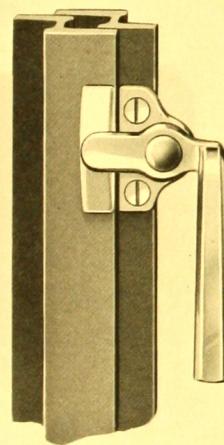
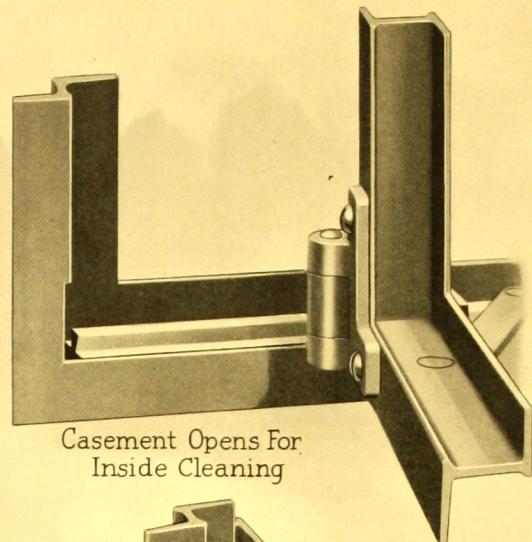
The handle, furnished as standard equipment with the residence type casement, is also of solid bronze in light statuary finish and is mounted on a solid bronze plate.

The neat, rich appearance of this handle is in keeping and will harmonize with the finest of hardware. It is sufficiently long to permit a full hand grip and is designed to allow clearance for the fingers, when operating the window.

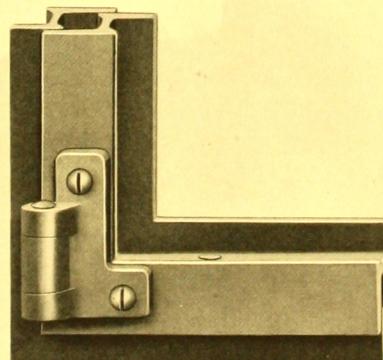
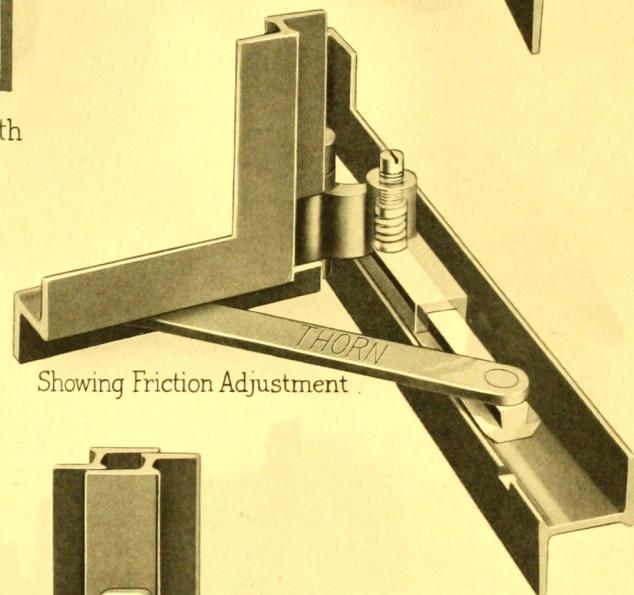
The tapering bronze striking wedge attached to the casement frame and the rounded bearing surface of the handle provide a good cam action and pull the casement leaf tightly to the frame.



Casement Equipped with  
Cleaning Hinge

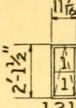
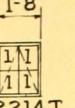
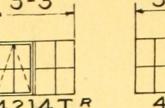
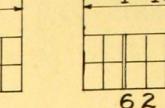
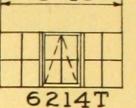
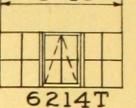
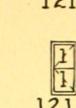
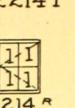
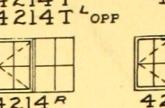
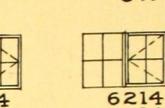
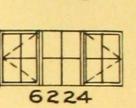
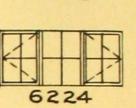
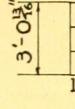
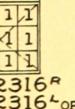
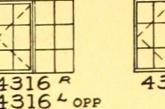
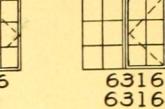
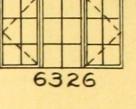
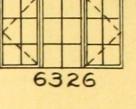
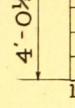
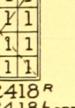
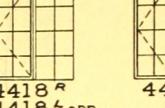
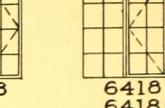
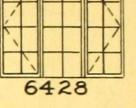
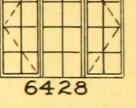
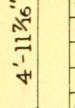
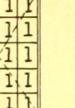
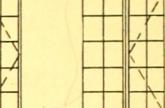
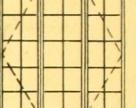
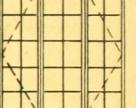
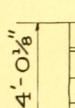
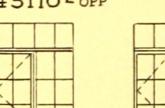
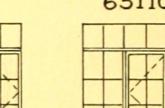
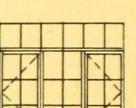
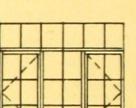
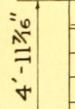
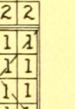
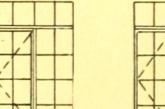
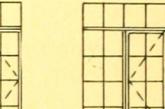
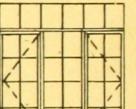
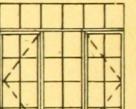
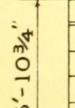
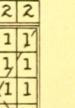
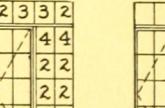
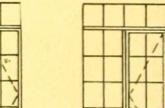
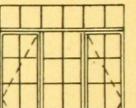
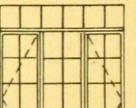


Thorn Straight  
Handle 7 RS 10



Closed Position

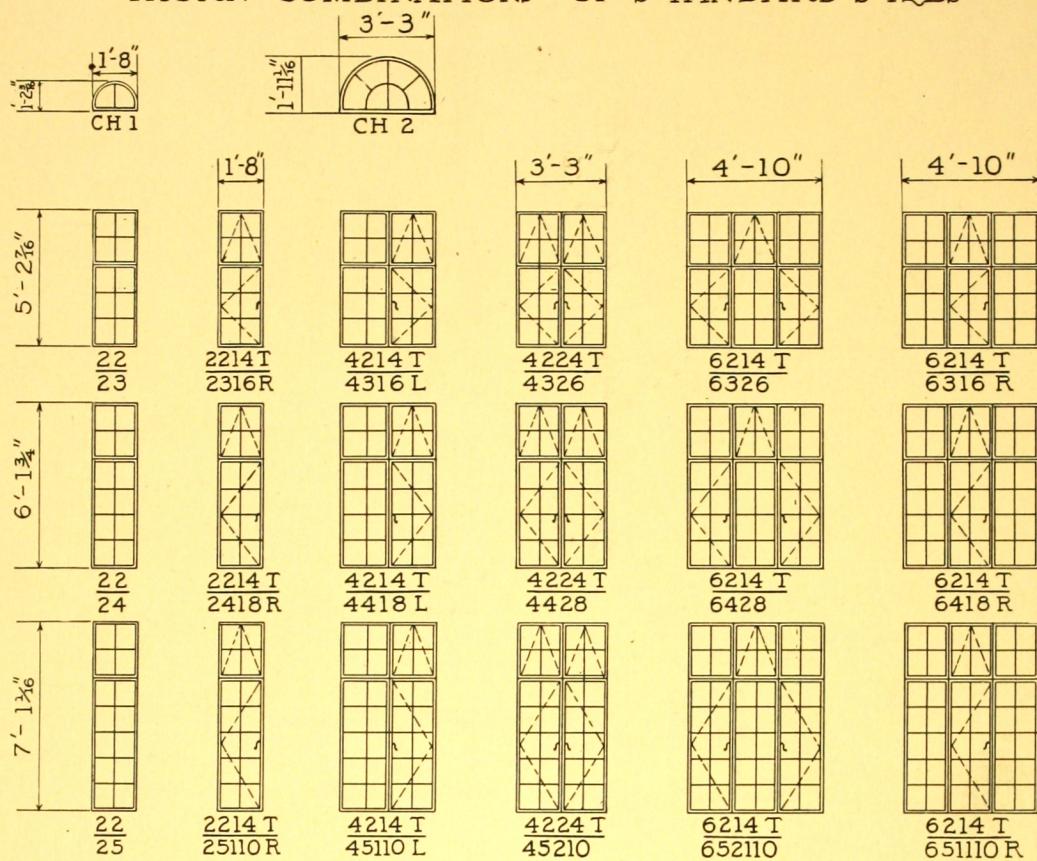
THORN STANDARD SIZES

	1212T		2214T		4214T <sup>R</sup> 4214T <sup>L</sup> OPP		42		62		6214T
	1212R 1212L OPP		2214R 2214L OPP		4214R 4214L OPP		4224		6214R 6214L OPP		6224
	1313R 1313L OPP		2316R 2316L OPP		4316R 4316L OPP		4326		6316R 6316L OPP		6326
	1414R 1414L OPP		2418R 2418L OPP		4418R 4418L OPP		4428		6418R 6418L OPP		6428
	1515R 1515L OPP		25110R 25110L OPP		45110R 45110L OPP		45210		65110R 65110L OPP		65210
	1413R 1413L OPP		2416R 2416L OPP		4416R 4416L OPP		4426		6416R 6416L OPP		6426
	1514R 1514L OPP		2518R 2518L OPP		4518R 4518L OPP		4528		6518R 6518L OPP		6528
	1615R 1615L OPP		2621R 2621L OPP		4621R 4621L OPP		46210		66210R 66210L OPP		66210

EXTERIOR ELEVATIONS  
 SIZES SHOWN ARE THE OVER ALL DIMENSIONS OF UNITS  
 ADD  $\frac{1}{4}$  INCH TO SIZES AS SHOWN FOR OPENINGS

FOR DETAILS SEE PAGES 10-11-12

## THORN COMBINATIONS OF STANDARD SIZES



## EXTERIOR ELEVATIONS

SIZES SHOWN ARE THE OVER ALL DIMENSIONS OF UNITS.

ADD  $\frac{1}{4}$ " TO SIZES AS SHOWN FOR OPENINGS.

UNITS MARKED "T" PROJECT OUT AT BOTTOM.

UNITS MARKED "R & L" ARE SIDE HUNG TO OPEN OUT AS INDICATED

NO	GLASS SIZE	NO	GLASS SIZE
1	8 $\frac{3}{16}$ " X 11"	5	9 $\frac{1}{16}$ " X 11"
2	8 $\frac{15}{16}$ " X 11"	6	9 $\frac{1}{16}$ " X 11 $\frac{3}{4}$ "
3	9 $\frac{3}{16}$ " X 11"	7	9 $\frac{1}{16}$ " X 11"
4	8 $\frac{15}{16}$ " X 11 $\frac{3}{4}$ "		

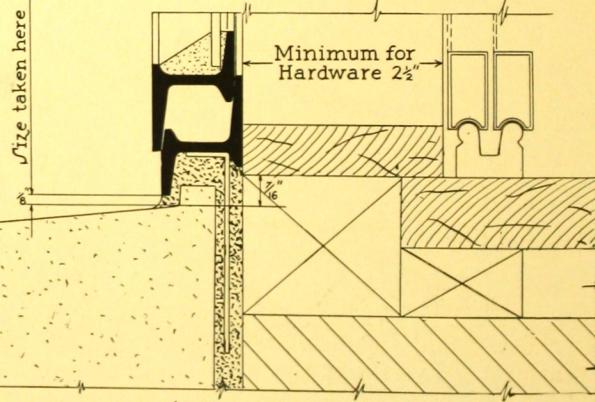
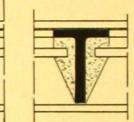
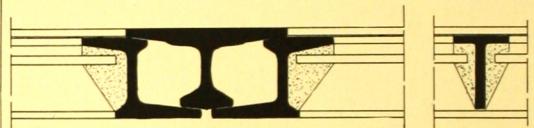
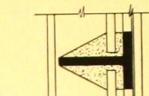
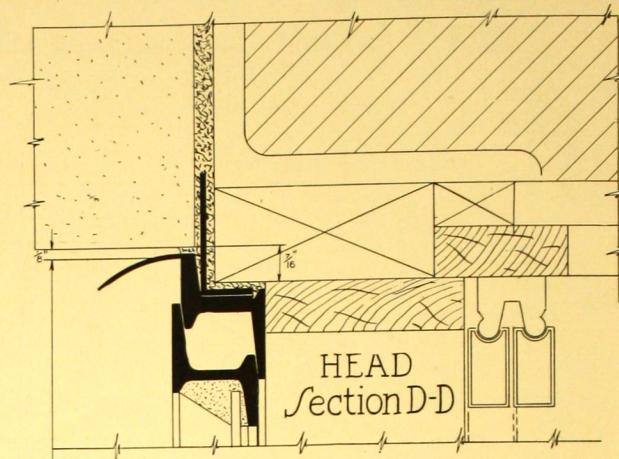
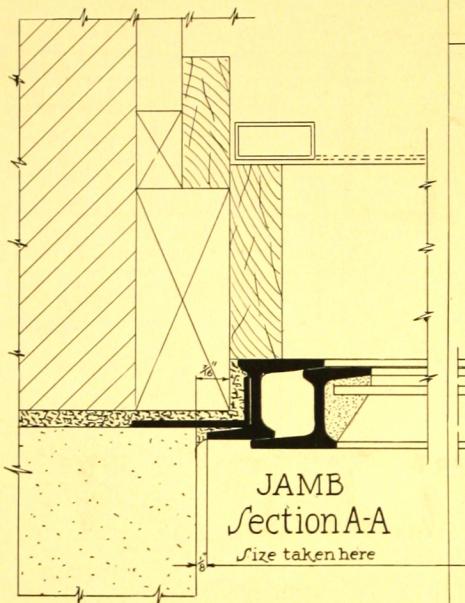
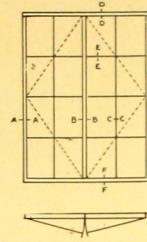
GLASS SCHEDULE FOR STANDARD CASEMENTS  
LIGHTS NUMBERED IN UNITS INDICATE GLASS SIZE  
CORRESPONDING LIGHTS IN OTHER UNITS NOT MARKED  
ARE SAME AS THOSE IN SCHEDULE

A TRANSOM HINGED AT TOP IS INDICATED THUS ☐

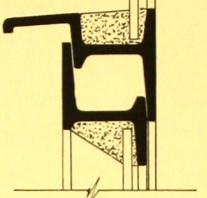
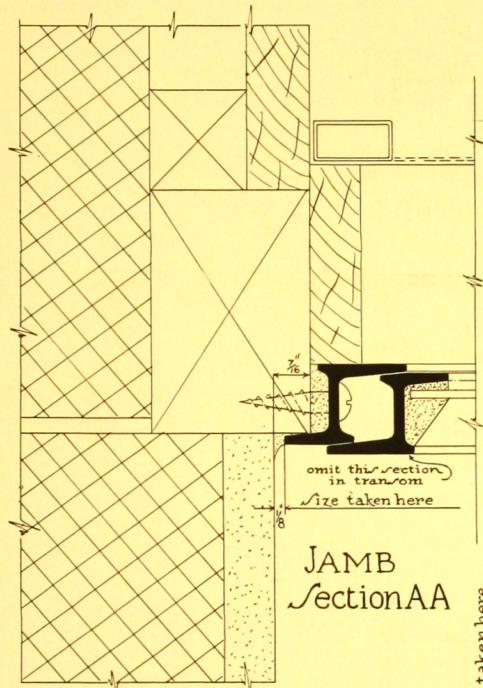
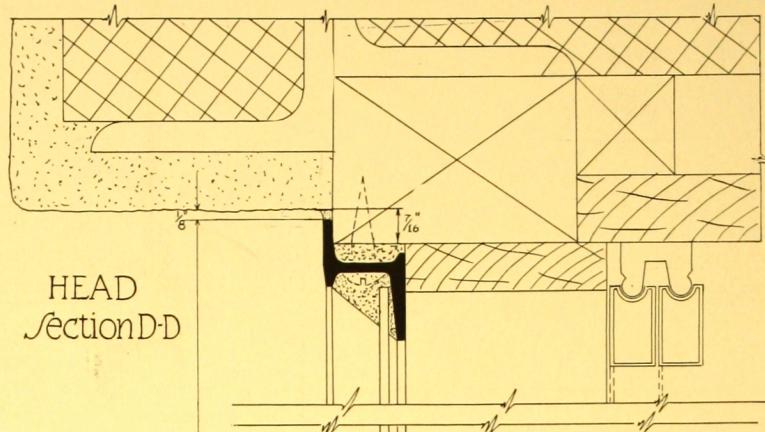
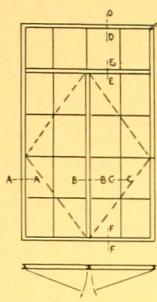
A SASH HINGED AT LEFT SIDE (from inside) IS INDICATED THUS ☐

A SASH HINGED AT RIGHT SIDE (from inside) IS INDICATED THUS ☐

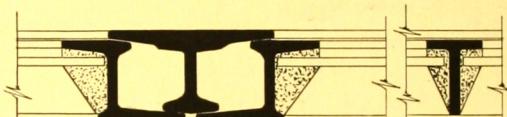
FOR DETAILS SEE PAGE 13



HALF-SIZE DETAILS FOR  
THORN  
STANDARD RESIDENCE  
TYPE CASEMENTS

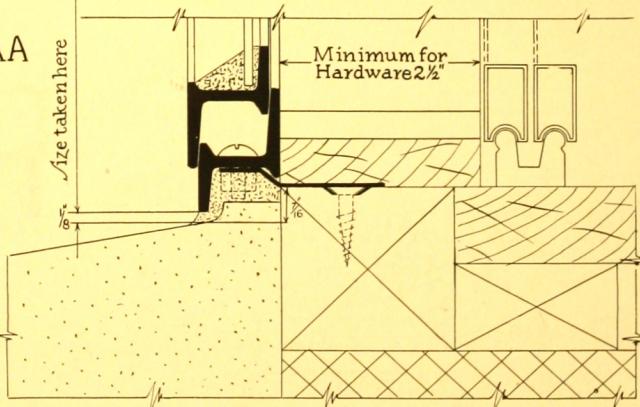


TRANSMON  
Section EE

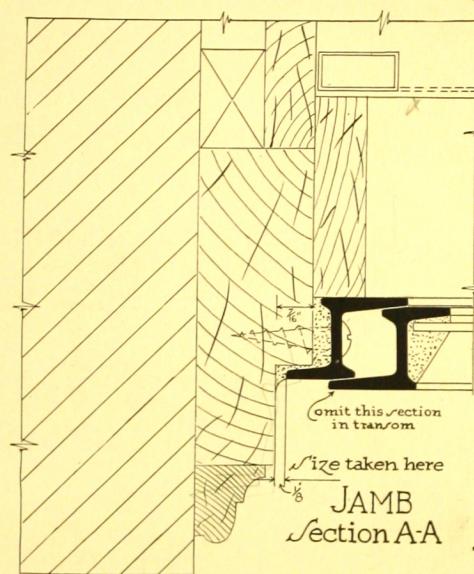
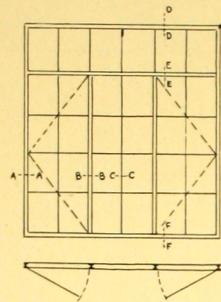


MULLION Section B-B

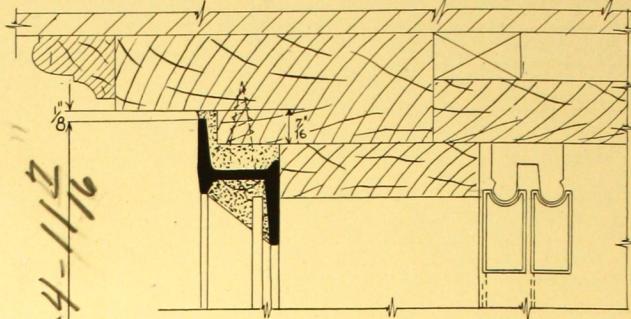
MUNTIN  
Section CC



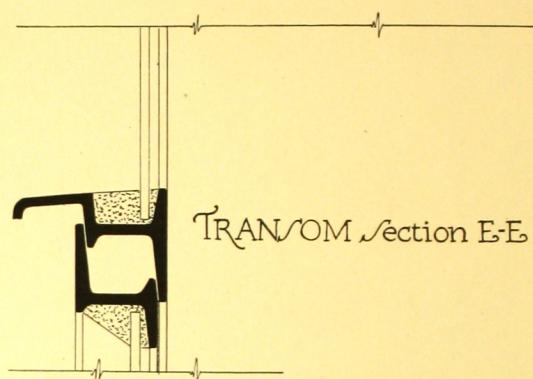
HALF-SIZE DETAILS FOR  
THORN  
STANDARD RESIDENCE  
TYPE CASEMENTS



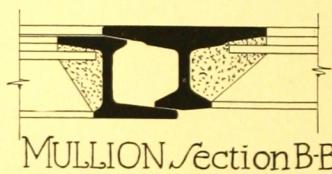
JAMB  
Section A-A



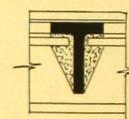
HEAD Section D-D



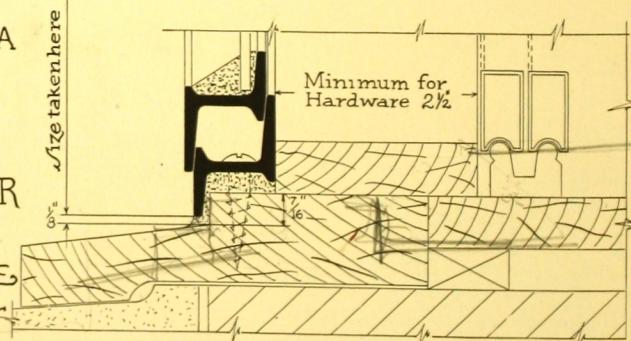
TRANSOM Section E-E



MULLION Section B-B

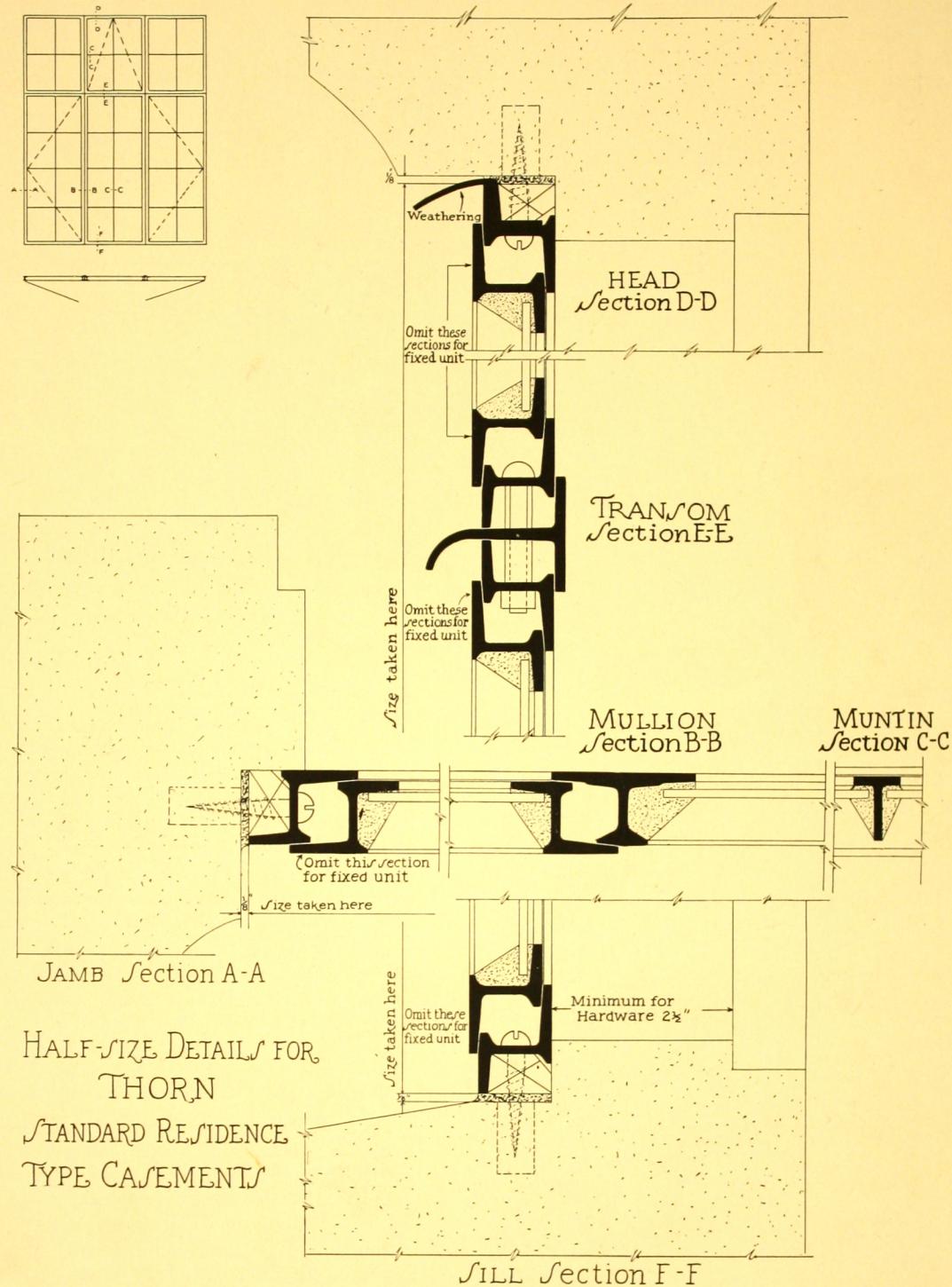


MUNTIN  
Section C-C



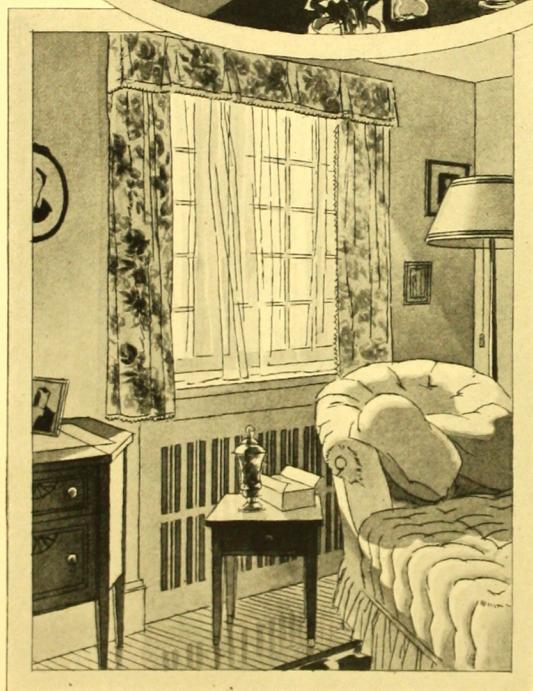
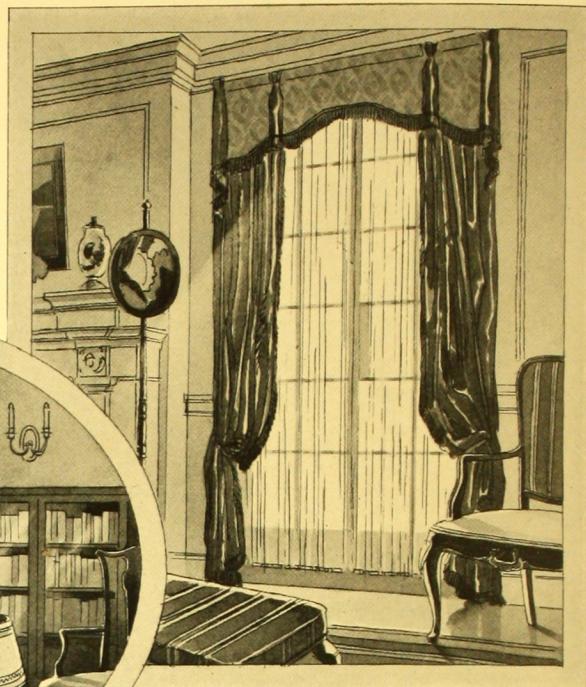
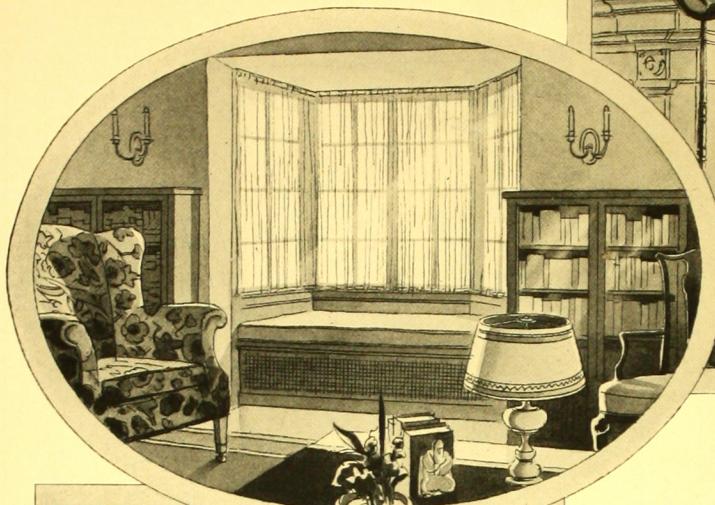
SILL Section F-F

HALF-SIZE DETAILS FOR  
THORN  
STANDARD RESIDENCE  
TYPE CASEMENTS



HALF-SIZE DETAILS FOR  
THORN  
STANDARD RESIDENCE  
TYPE CASEMENTS

## DRAPERIES and SCREENS



### DRAPERIES

THE beauty of the steel casement is not confined to the exterior, but it is even more charming from the interior, and properly treated will harmonize with interior furnishings of almost every period, creating pleasing, beautiful effects, impossible of attainment with any other type of window.

Window treatment depends largely on the other interior furnishings, and should unusual effects be desired, a reliable interior decorator should be consulted.

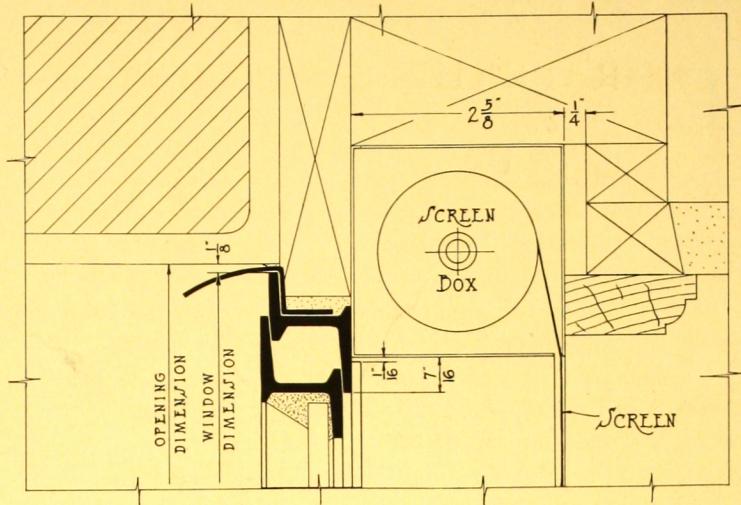
However, we have shown a few popular methods of draping casement windows and French doors which are very effective and create an air of neatness, simplicity and refinement.

### SCREENS

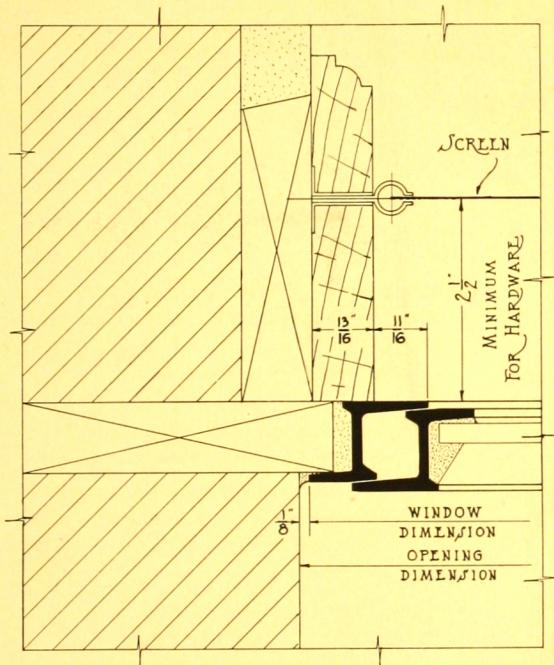
Thorn Residence casements open out, therefore screens are placed inside. Screens are easy to apply, and under ordinary conditions special details are unnecessary. Side hinged, horizontal sliding or roll-up screens are all quite satisfactory.

On the page opposite is shown a typical detail for roll-screen construction.

• HEAD •



• JAMB •



TYPICAL DETAIL OF ROLL-SCREEN.  
OTHER DETAILS FURNISHED UPON  
REQUEST

DETAILS OF ROLL-SCREEN  
APPLIED TO  
THORN STANDARD RESIDENCE CASEMENTS

## THORN STEEL BASEMENT WINDOWS

**T**HE THORN basement window is also made of double contact casement sections.

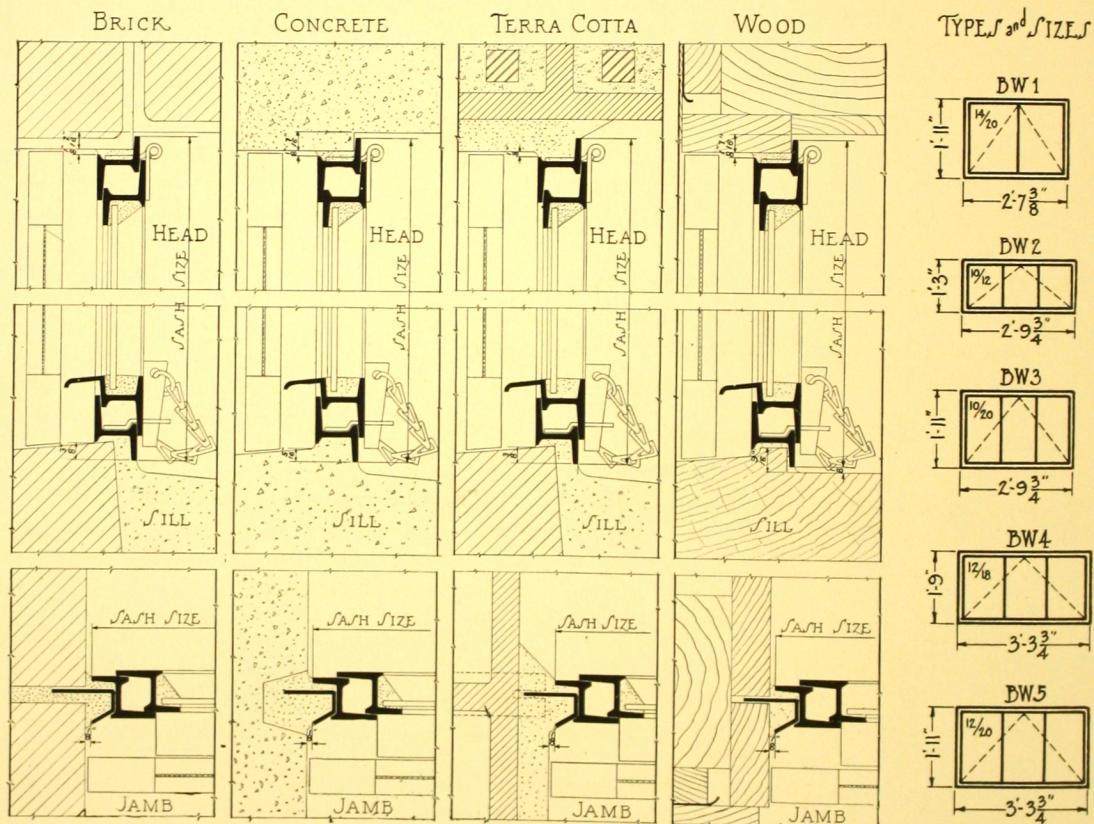
The sash is hung from the frame by substantial butt hinges, which hold it tightly against the frame and which are a permanent guarantee of smooth sash movement and against binding and breaking. The hinge is made with a sturdy but easily removed pin, should it become necessary to remove sash from frame.

The windows are equipped with a self-centering locking wedge and ring for locking and ventilation.

Frame and sash are shipped from the factory completely assembled, with all hardware attached and with a good coat of metallic paint applied, and are ready for setting in the openings without further preparation or fitting.

Glass is applied from the inside and each light after bed puttying is held by wire clips furnished with the sash. The face putty is then applied, the same as in wood sash.

*All windows have holes in the frame for attachment of screens*



## SPECIFICATIONS

**FRENCH Casement Doors**, unless otherwise shown, shall be Thorn type as manufactured by J. S. THORN COMPANY, Philadelphia, Pa.

They shall be made of double contact casement sections, not less than  $1\frac{7}{16}$  inches deep, and shall have heavy extruded bronze thresholds, designed for double contact with casement leaf, brazed to steel jamb framing members. All doors opening in shall have extruded bronze weatherdrips not less than  $\frac{1}{8}$  inch thick attached to bottom section of door leaves.

Corners of frame and leaves shall be mitered, butt welded and ground and buffed to a smooth finish.

Glazing beads shall be carefully mitered and fitted to casement doors and shall be held in place by brass oval head screws.

The doors shall be hung on bronze butts and shall be fitted with bronze cremorne bolts, scroll handles and top and bottom bolts. Exterior doors must have night latches.

Two coats of elastic grey enamel shall be applied to doors at the factory, each coat separately baked on.

**THORN STANDARD FRENCH CASEMENT DOORS** are made to fit an opening 3 feet  $7\frac{3}{4}$  inches by 6 feet  $10\frac{1}{16}$  inches and are arranged to open in or out.

They are made of Thorn medium type steel casement sections,  $1\frac{7}{16}$  inches in depth, electrically welded at the corners, and ground and buffed to a smooth finish. They are arranged with a long glass panel in the upper section divided into small lights by "T" bar muntins carefully welded at all intersections and fitted with glazing beads of moulded steel carefully mitered at the corners. The lower section is arranged with a small kick panel of two pieces of furniture steel plate with a filler between.

The sill is composed of a heavy extruded bronze threshold carefully riveted and brazed to the jamb sections. The design of sill gives perfect double contact weathering on both "open in" and "open out" types. The "open in" type is fitted with an extruded bronze weatherdrip at the sill.

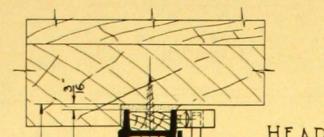
The doors are carefully hand fitted and bedded to the frames, and each leaf is hung on three heavy solid bronze hinges. Cremorne bolts of solid bronze, light statuary finish, with beautiful scroll handles and top and bottom bolts, are applied to doors at the factory.

Two coats of elastic grey enamel are sprayed on the doors and each coat is separately baked on.

They are carefully packed and crated before shipment and should not be removed from the crates until the openings are prepared to receive them.

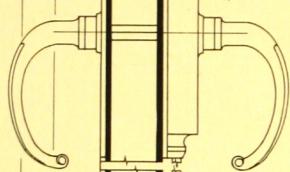
They should be carefully set in a good bedding of mastic and should be "eased" into the openings without springing or forcing and then screwed into a permanent position.

Extreme care should be taken in setting glass to return the glazing beads to the same bars from which they are removed.



HEAD

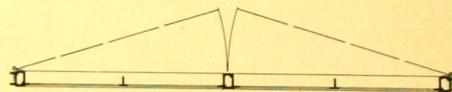
OPENING DIMENSION  
DOOR DIMENSION



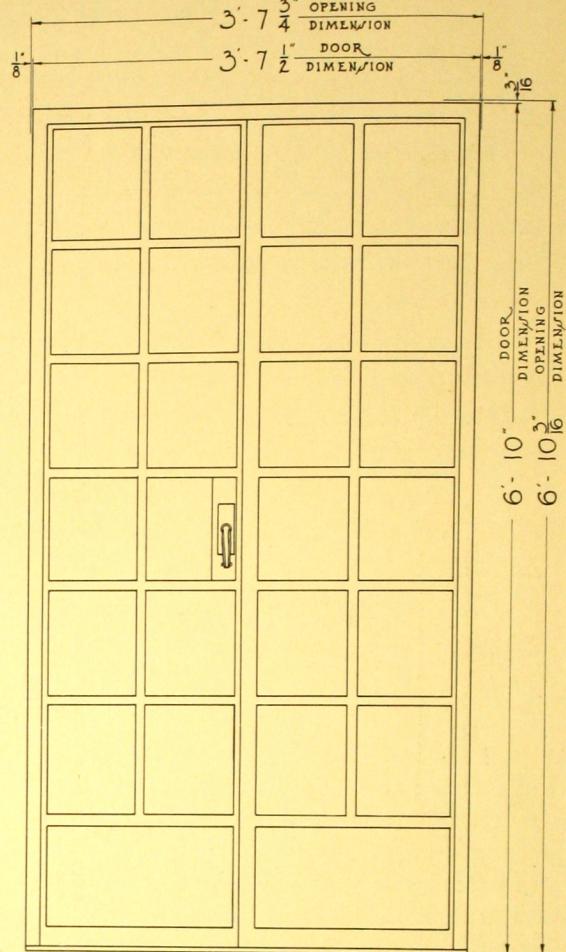
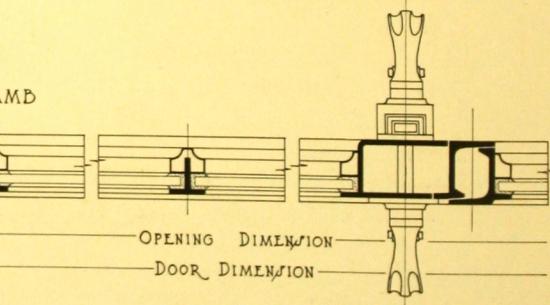
Bronze Drip  
SILL  
Bronze Threshold  
DETAILS OF  
FRENCH CASEMENT DOOR  
- OPEN IN -

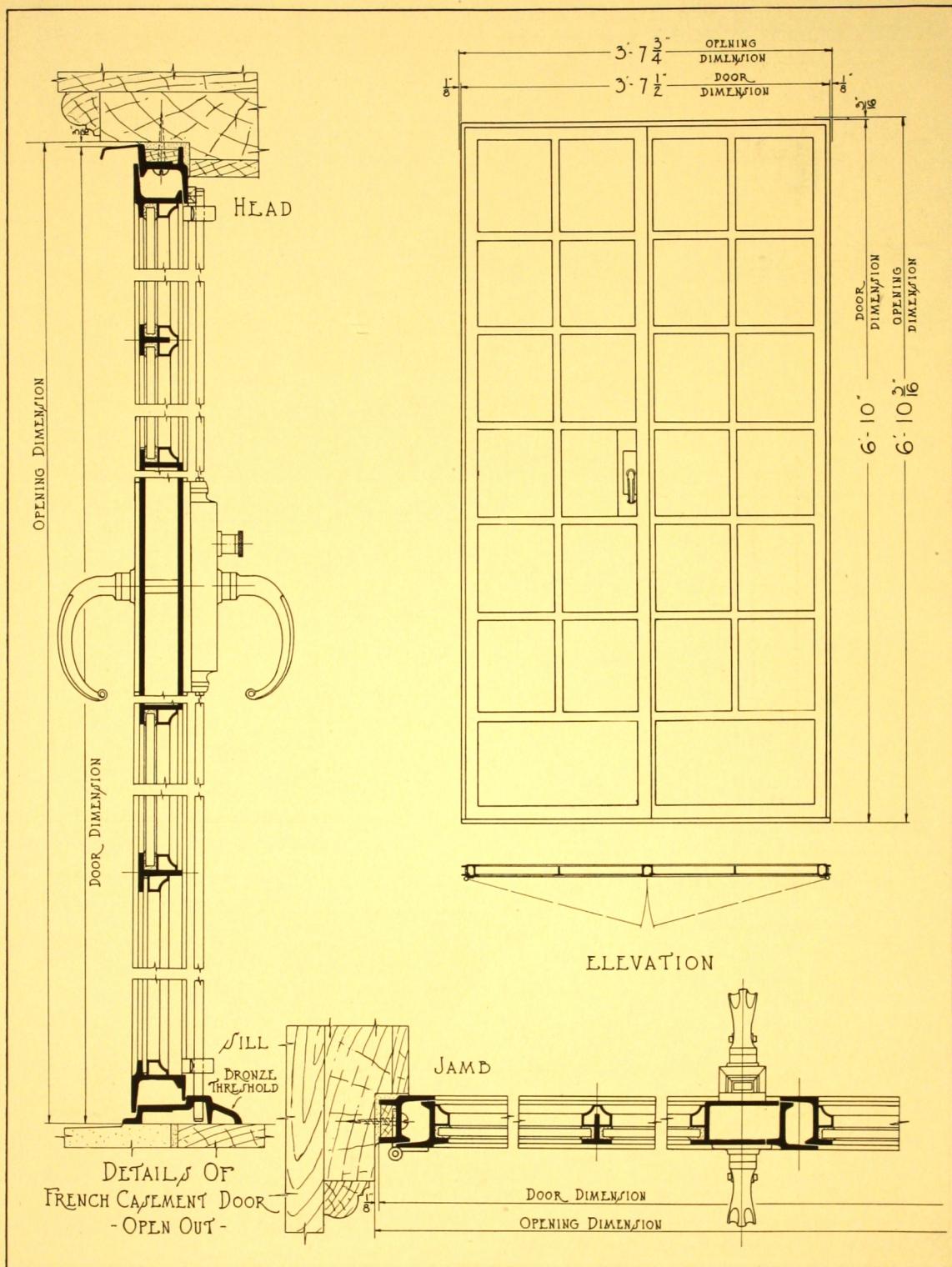
JAMB

OPENING DIMENSION  
DOOR DIMENSION



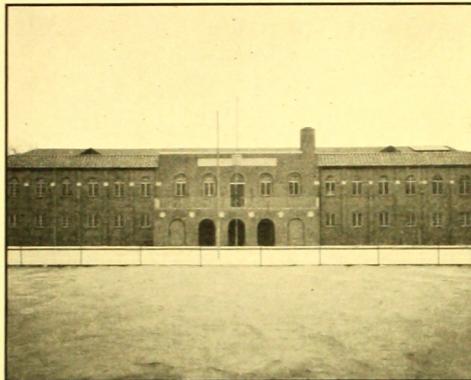
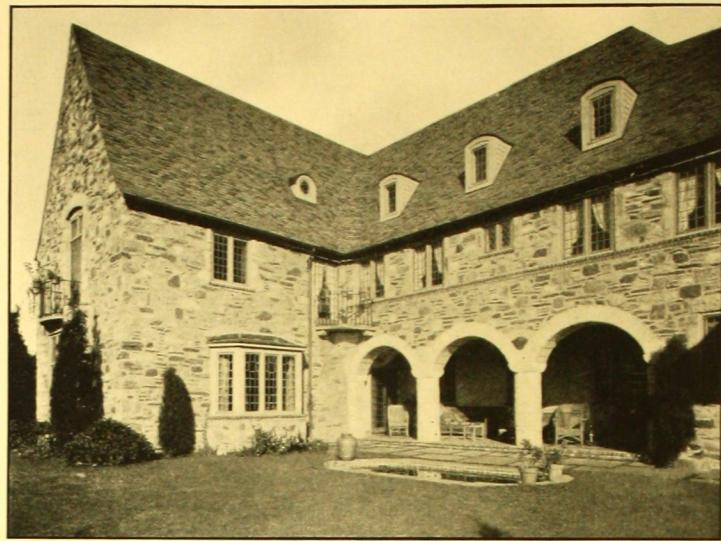
ELEVATION







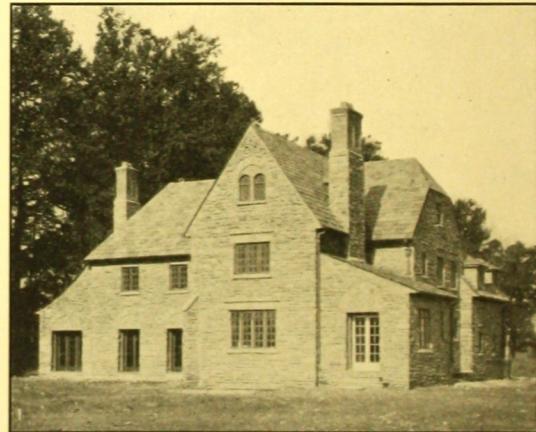
**THORN  
CASEMENTS**

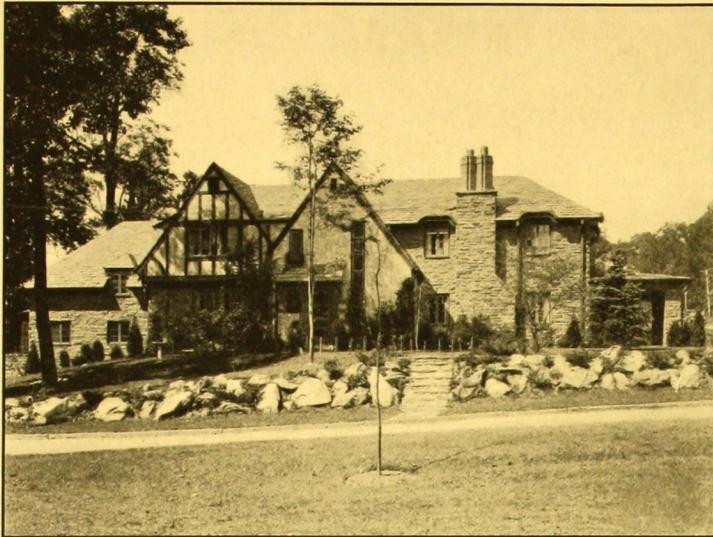


**SHANAHAN CATHOLIC CLUB**  
*Philadelphia, Pa.*  
Stackhouse & Donohoe, Architects

**SHAY RESIDENCE**  
*Rose Valley, Pa.*  
Howell Louis Shay, Architect

**FLIGG RESIDENCE**  
*Elkins Park, Pa.*  
Aaron Traub, Architect and Builder





THORN  
CASEMENTS

RESIDENCE IN WYNNEWOOD, PA.  
Stetler & Deysher, Architects

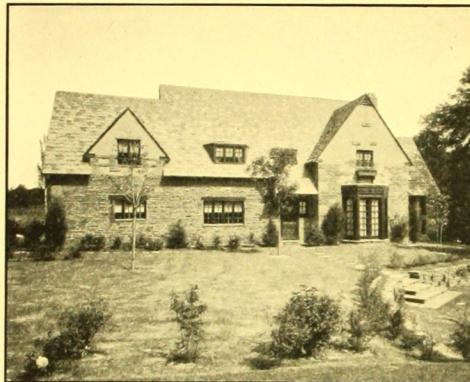
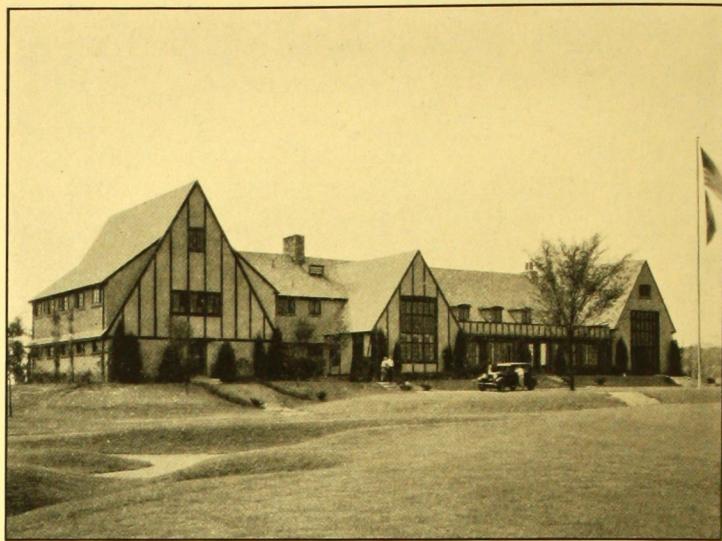
KNIGHTEN RESIDENCE  
*Great Neck, L. I.*  
Mann & MacNeillie



DINTENFASS RESIDENCE  
*Germantown, Pa.*  
Edmund B. Gilchrist, Architect



THORN  
CASEMENTS



LULU COUNTRY CLUB

*Glenside, Pa.*

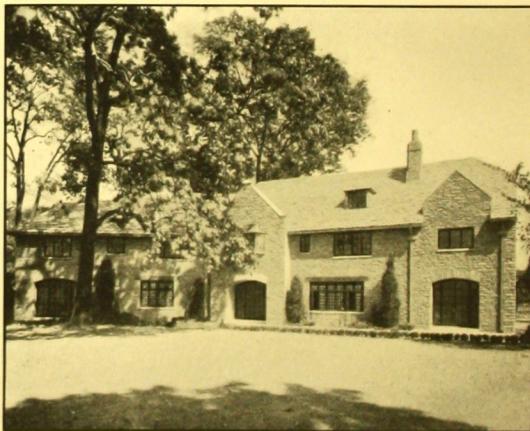
Philip H. Johnson, Architect

CLARK RESIDENCE

*Germantown, Pa.*

De Armond, Ashmead & Bickley, Architects

HOUSE IN WYNNEWOOD, PA.  
Richard A. Kerns, Jr., Architect

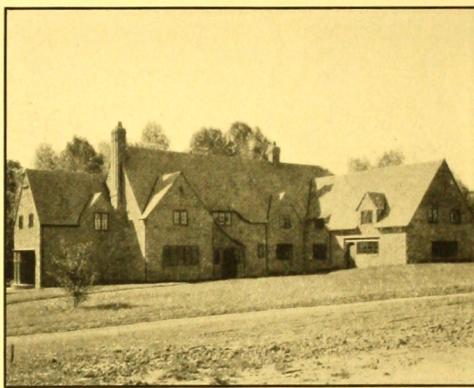




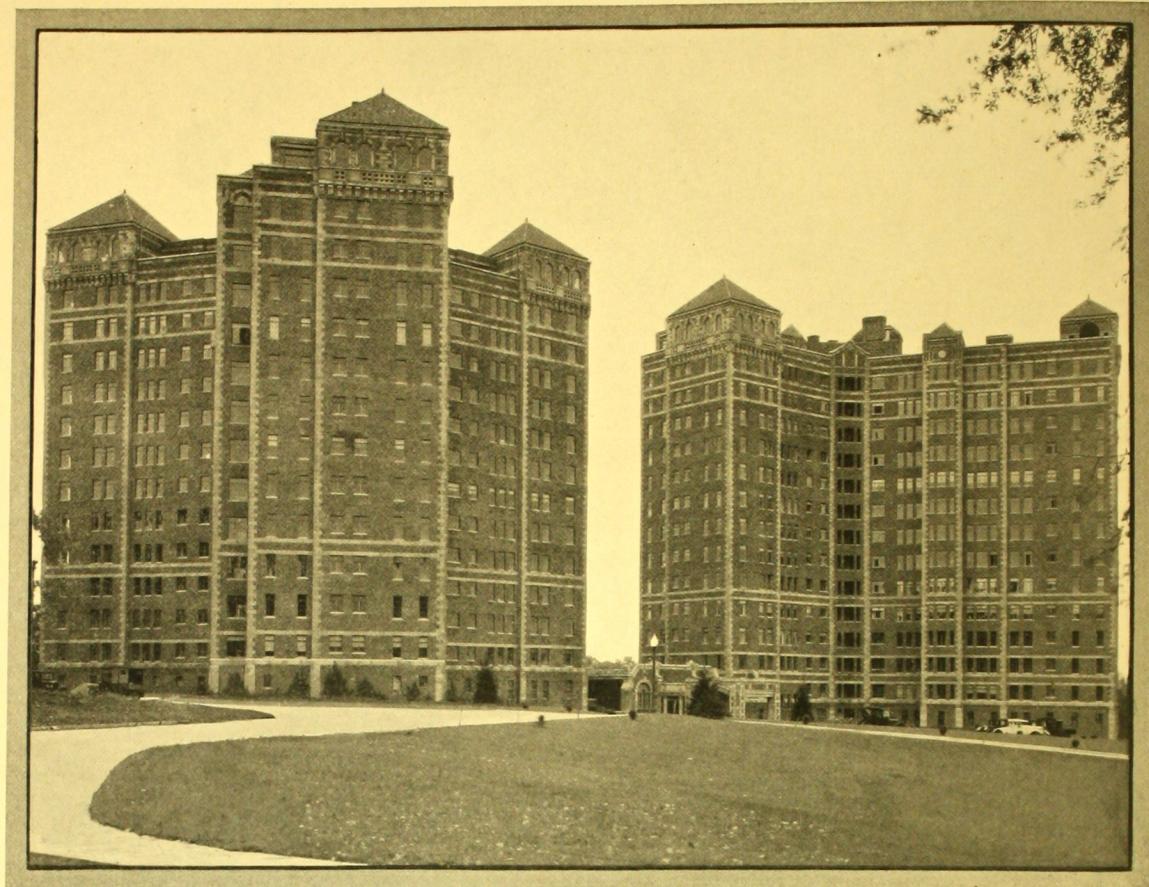
THORN  
CASEMENTS

BREUREN RESIDENCE  
*Great Neck, L. I.*  
H. N. Weinberg, Architect

MATZINGER RESIDENCE  
*Drexel Hill, Pa.*  
George P. Gehring, Builder



ZIMMERMAN RESIDENCE  
*Haverford, Pa.*  
Durham & Irvine, Architects



THE KENILWORTH

Alden Park      Philadelphia, Pa.  
Edwyn Rorke      Architect

THE Kenilworth is one of the finest and most modern apartment buildings in the East. It is located in Alden Park, one of Philadelphia's exclusive suburbs, and from its high elevation it holds a commanding view over the beautiful Wissahickon Valley.

Sunshine, ventilation, comfort and an unobstructed outlook from each of the eighty-nine DeLuxe apartments were uppermost in the minds of the owners and builders in designing these buildings, and Thorn casements were selected as the most important contributing factor to the accomplishment of these high ideals.

These two beautiful buildings contain 3,140 units of Thorn Residence Casements, each of which is giving the individual apartment owners the ultimate in satisfaction, which the Thorn Company guarantees.

## **OTHER THORN PRODUCTS**

COTTAGE CASEMENTS  
MANOR CASEMENTS  
SPECIAL HEAVY CASEMENTS  
DOUBLE HUNG PLATE WINDOWS  
PIVOTED INDUSTRIAL WINDOWS  
COMMERCIAL PROJECTED WINDOWS  
ARCHITECTURAL PROJECTED WINDOWS  
CONTINUOUS WINDOWS  
COUNTERBALANCED WINDOWS  
INDUSTRIAL STEEL DOORS  
KALAMEIN DOORS  
HOLLOW METAL DOORS  
PRESSED STEEL DOOR FRAMES  
STEEL PARTITION  
HOLLOW METAL WINDOWS  
STEEL SKYLIGHT

# THORN CASEMENTS